

### **REMARKS**

This responds to the Office Action dated March 13, 2007.

Claims 1, 6 and 11 are amended, claim 12 is canceled, and no claims are added; as a result, claims 1-11 and 13-35 are now pending in this application.

#### **§102 Rejection of the Claims**

Claims 1-4 and 32 were rejected under 35 U.S.C. § 102(a) for anticipation by "The ARBAC97 Model for Role-Based Administration of Roles" by Sandhu et al ("Sandhu").

Applicant respectfully traverses the rejection as applied to the claims in their present form.

Applicant cannot find in Sandhu, among other things, encapsulating security mechanism application specific information for each security mechanism, wherein encapsulating includes forming a key for each security mechanism using an application layer ... encapsulating key chains as keys and passing the key chain keys to another semantic layer ... importing a key from the semantic layer to a local policy layer;

as presently recited in claim 1.

Instead, Sandhu relates to organizing abilities into a hierarchy.<sup>1</sup>

Additionally, Applicant cannot find, encapsulating key chains as keys and passing the key chain keys to another semantic layer, as recited in claim 1. The Office Action reads the UP-roles of Sandhu onto the semantic layers recited in the claims.<sup>2</sup> Applicant respectfully disagrees with this characterization of the semantic layer recited in the claims. Sandhu refers to assigning roles to roles to define a role-role hierarchy,<sup>3</sup> and states that assigning an ability to a role is mathematically equivalent to making the UP-role an immediate senior of the ability in the role-role hierarchy.<sup>4</sup> In contrast to a hierarchy, the Patent Application teaches that semantic layers form a poset and that certain layers may be bypassed.<sup>5</sup> Therefore, the UP-Role of Sandhu does not read on the semantic layer recited in the claims.

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<sup>1</sup> Sandhu, Section 5, ppg. 122-123.

<sup>2</sup> Office Action, pg. 3.

<sup>3</sup> Sandhu, pg. 107.

<sup>4</sup> Sandhu, pg. 123.

<sup>5</sup> Patent Application, pg. 14 lines 8-15.

Applicant respectfully requests reconsideration and allowance of claims 1-4 and 32.

§103 Rejection of the Claims

Claims 5-11 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sandhu, as applied to claim 1 above, in further view of "Issues in the Design of Secure Authorization Service for Distributed Applications" by Varadharajan, Pato, and Crall ("Crall"). Applicant respectfully traverses the rejection as applied to the claims in their present form.

Applicant respectfully submits that the Office Action fails to establish proper *prima facie* obviousness because all elements recited or incorporated in these rejected claims are not taught or suggested in the proposed combination of Sandhu and Crall.

Regarding claim 5:

Claim 5 depends on base claim 1. Applicant believes base claim 1 to be allowable for the reasons set forth above. The addition of Crall fails to provide the missing elements.

Regarding claims 6-10:

Applicant cannot find any teaching or suggestion in Sandhu and Crall of, among other things,

a plurality of semantic layers within a model implemented on the computer network, wherein the two or more of the semantic layers include keys combinable into key chains, ... and the key chain keys are exportable to another semantic layer, wherein the model also includes an application layer to encapsulate a security mechanism into a key and a local policy layer to associate a user to a key,

as presently recited in claim 6.

As set forth above, Sandhu relates to organizing abilities into a hierarchy.<sup>6</sup> Crall states that a key concept in working with profiles and privileges is inheritance<sup>7</sup> instead of key chain keys exportable to another semantic layer. Thus, the proposed combination of Sandhu and Crall does not teach or suggest all of the elements recited in the claims.

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<sup>6</sup> Sandhu, Section 5, pgs. 122-123.

<sup>7</sup> Crall, pg. 879, right column.

Regarding claims 11 and 13:

Base claim 11 was rewritten to include the elements of dependent claim 12, and claim 12 was canceled. Applicant believes claim 11 is in a form indicated to be allowable by the Examiner.

Applicant respectfully requests reconsideration and allowance of claims 5-11 and 13.

Allowable Subject Matter

Claims 14-31 and 33-35 were allowed. Applicant acknowledges the allowed subject matter.

Claim 12 was objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 12 was dependent on base claim 11. Base claim 11 was rewritten to include the elements of dependent claim 12, and claim 12 was canceled. Applicant believes claim 11 is presently in a form indicated to be allowable by the Examiner.

**Reservation of Rights**

In the interest of clarity and brevity, Applicant may not have addressed every assertion made in the Office Action. Applicant's silence regarding any such assertion does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 373-6909 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: MS AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 10<sup>th</sup> day of May 2007.

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